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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,485	09/06/2007	Ezio Ghigo	290494.122US1	1304

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WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109

EXAMINER	
CHANDRA, GYAN	
ART UNIT	PAPER NUMBER
1646	

NOTIFICATION DATE	DELIVERY MODE
10/05/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael.mathewson@wilmerhale.com
teresa.carvalho@wilmerhale.com
sharon.matthews@wilmerhale.com

Office Action Summary	Application No.	Applicant(s)	
	10/595,485	GHIGO ET AL.	
	Examiner	Art Unit	
	GYAN CHANDRA	1646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11,12,15-20,25-29,43-48 and 87-96* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11,12,15-20,25-29,43-48 and 87-96* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/19/2007; 1/12/2009; 5/28/2009; 9/23/2009.

Re: Ghigo
Priority date: 10/24/2003

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I (claims 1-29 and 43-53) and species "insulin level and obesity" in the reply filed on 5/28/2009 is acknowledged. The traversal is on the ground(s) that the second restriction requirement (Further Restriction within Group I) should be withdrawn because the amino acid sequences depicted in SEQ ID NOs: 1 and 3; and the amino acid sequences depicted in SEQ ID NO: 2 and 4 are very similar. This is found persuasive and therefore, the second restriction is withdrawn. Applicant further argues that searching for the combination of species would not increase the burden upon the Examiner. Applicants' arguments have been fully considered but they are not persuasive because searching for each species would require a non-coextensive search of non-patent literature (NPL) and for the reasons of record on pg. 4-6 of the office action mailed on 4/3/2009. However, upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

The requirement is still deemed proper and is therefore made FINAL.

Status of Application, Amendments, And/Or Claims

The amendments of claim 4-9, 11, 12, 15, 16, 27 and 43-48, and the addition of claims 87-96 have been made of record.

Claims 10, 13, 14, 21-24, 30-42 and 49-86 are cancelled.

Claims 1-9, 11, 12, 15-20, 25-329, 43-48 and 87-96 are pending and under examination.

Information Disclosure Statement

The information Disclosure Statements (IDSs) filed on 9/19/2007, 1/12/2009, 5/28/2009 and 9/23/2009 have been considered. The crossed out references in the IDS of 9/23/2009 have already been considered in the IDS filed on 1/12/2009.

Specification

The listing of references in the specification (pg. 43-50) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Brief Description of the Drawings

The Brief Description of the Drawings for Figures 2, 3, 5, and 7 are objected because the description of figure 2, 3,5 or 7 does not match with the legend. For example, the brief description recites Figure 2, whereas the legend says FIG. 2A, FIG. 2B, FIG. 2C, FIG. 2D and FIG. 2E. The Examiner suggests that the Brief description could recite, for example, FIG. 2A-2E or Figures 2A-2E. Appropriate correction is needed.

Claim Rejections - 35 USC § 112-written description

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9, 11, 12, 15-20, 25-29, 43-48 and 87-96 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The written description in this case only sets forth ghrelin or unacylated ghrelin, and therefore the written description is not commensurate in scope with any analog of ghrelin or any analog of unacylated ghrelin.

The claims broadly encompass any analog of unacylated ghrelin or any analog of ghrelin to prevent or treat a metabolic disorder associated with any insulin-associated parameter. However, the claims do not require that an analog of unacylated ghrelin possesses any particular feature that prevents or treats any insulin-associated parameter.

The specification on pg. 12-13 discloses that an analog refers to both structural and functional analogues of unacylated ghrelin which are capable of replacing unacylated ghrelin in antagonizing the peripheral actions of ghrelin and a structural analogue may comprise peptides showing homology with unacylated ghrelin as set forth in SEQ ID NO: 1 or a fragment thereof. The specification does not disclose any

functional analog and its conserved structure that makes functional analog of ghrelin or unacylated ghrelin.

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. Some of the factual considerations that are weighed when determining a written description include the level of skill and knowledge in the art, the disclosure of complete or partial structures, the disclosure of physical and or chemical properties, adequate disclosure of the functional characteristics, the correlation between structure and function, and disclosure of methods of making.

In the instant case, the specification (on page 32-42) only adequately discloses that the administration of acylated ghrelin, unacylated ghrelin or a combination thereof in a subject alters insulin-associated parameters. The specification does not provide any other analog that could achieve the same effect. The general knowledge and level of skill in the art do not supplement the omitted description because specific, not general, guidance is what is needed.

Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, 1 "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

Vas-Cath Inc. V. Mahurka, 19 USPQ2d 1111, states that applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention, for purposes of the written description inquiry, is *whatever is now claimed* (see page 1117). The specification does

not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (see Vas-Cath at page 1116).

A description of a genus may be achieved by means of a recitation of a representative number of species falling within the scope of the genus or of a recitation of structural features common to the members of the genus, which features constitute a substantial portion of the genus. Regents of the University of California v. Eli Lilly & Co., 119 F3d 1559, 1569, 43 USPQ2d 1398, 1406 (Fed. Cir. 1997). In Regents of the University of California v. Eli Lilly (43 USPQ2d 1398-1412), the court held that a generic statement which defines a genus of nucleic acids by only their functional activity does not provide an adequate written description of the genus. The court indicated that, while applicants are not required to disclose every species encompassed by a genus, the description of the genus is achieved by the recitation of a representative number of species falling within the scope of the claimed genus. At section B (1), the court states an adequate written description of a DNA ... requires a precise definition, such as by structure, formula, chemical name, or physical properties, not a mere wish or plan for obtaining the claimed chemical invention.

As discussed above, the skilled artisan cannot envision the detailed genus of "analogs of unacylated ghrelin" and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of making a mutation. The compound itself is required. See Fiers v.Revel, 25USPQ2d 1601 at 1606 (CAFC 1993) and Amgen v.Baird, 30 Chugai Pharmaceutical Co. Ltd., 18 USPQ2d 1016. One cannot describe what one has not conceived. See Fiddes v. Baird,

30 USPQ2d 148 at 1483. In Fiddes, claims directed to mammalian FGF's were found to be unpatentable due to lack of written description for that broad class.

Therefore, only the unacylated ghrelin (polypeptide of SEQ ID NO: 2), or acylated ghrelin (polypeptide of SEQ ID NO: 1) but not the full breadth of the claim meets the written description provision of 35 U.S.C. §112, first paragraph.

Applicant is reminded that Vas-Cath makes clear that the written description provision of 35 U.S.C. 112 is severable from its enablement provision (see page 1115).

Claim Rejections - 35 USC § 112-scope of enablement

Claims 1-9, 11, 12, 15-20, 25-29, 43-48 and 87-96 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for treating an insulin-associated parameter (insulin level) by administering in a subject a composition comprising a ghrelin and unacylated ghrelin, does not reasonably provide enablement for (i) preventing insulin deficiency or preventing insulin associated parameter in a subject by administering a composition comprising a ghrelin or analog thereof or a fragment of SEQ ID NO: 1, and unacylated ghrelin or analog thereof or a fragment of SEQ ID NO: 2; or (ii) altering an insulin-associated parameter in a subject by administering any analog of ghrelin and any analog of unacylated ghrelin. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

In In re Wands, 8USPQ2d, 1400 (CAFC 1988) page 1404, the factors to be considered in determining whether a disclosure would require undue experimentation

include: (1) Nature of the invention, (2) the state of the prior art, (3) the predictability or lack thereof in the art, (4) the amount of direction or guidance present, (5) the presence or absence of working examples, (6) the breath of the claims, (7) the quantity of experimentation needed, (8) relative skill of those in the art.

The instant disclosure fails to meet the enablement requirement for the following reasons:

The instant claims are broadly drawn to (i) a method of preventing insulin deficiency or any insulin-associated parameter in a subject by administering a composition comprising a ghrelin or analog thereof or a fragment of SEQ ID NO: 1, and unacylated ghrelin or analog thereof or a fragment of SEQ ID NO: 2 or (ii) a method of altering an insulin-associated parameter in a subject by administering any analog of ghrelin and any analog of unacylated ghrelin.

The state of the prior art and the predictability or lack thereof in the art:

With regards to the prevention of an insulin-associated parameter in a patient comprising administering an unacylated ghrelin or an analog thereof and acylated ghrelin or an analog thereof, the specification does not disclose sufficient guidance or objective evidence that such an unacylated ghrelin or an analog thereof and acylated ghrelin or an analog thereof would predictably prevent an insulin-associated disorder in a patient. The prevention of any insulin-associated disorder by administering an unacylated and acylated ghrelin is highly unpredictable. Marzullo et al (IDS, J. Clin. Endocr. Metab. 89: 936-939, 2004) teach that ghrelin in a 28 amino acid residues in length, and that ghrelin is involved in obesity (page 936). Marzullo et al state that human obesity is associated with significantly lover levels of both acylated and des-acylated

ghrelin (page 938, discussion). Muzullo et al teach that there is a close relationship between total and active ghrelin in lean subjects but not in obese patients (page 938, right column). They suggest that ghrelin administration in rats promotes food intake and decreases energy expenditure but they state that the role of ghrelin in energy expenditure is debatable (938, right column). Flanagan et al (2003) teach that ghrelin interacts with the growth hormone (GH) secretagogue receptor in the pituitary and hypothalamus and may function as a third physiological regulator of GH secretion, along with GH-releasing hormone and somatostatin (page E313, left column). Flanagan et al teach feeding suppresses the production of ghrelin and fasting stimulates ghrelin release (page E313, left column). They teach that insulin suppresses circulating level of ghrelin independently of glucose, although glucose may have an additional effect (abstract and page E314, right column). Enomoto et al (2003) teach that the intravenous administration of ghrelin shows a dose dependent release of GH in rat and human (Introduction, page 431). They teach effect of ghrelin on various hormones, for example prolactin, adrenalin, noradrenalin (page 433, Hormonal responses to subcutaneous ghrelin and Table 1). This suggests even though ghrelin plays some role in energy metabolism and in the homeostasis of insulin and glucose, but a large number of experimentation would be needed to prove if ghrelin can prevent any insulin-associated parameter in a subject in need thereof.

Further, the instant invention is drawn to making and testing analogs of ghrelin or unacylated ghrelin encompassing many variants of ghrelin or any other compound that could achieve ghrelin related function. It is known in the art that even single amino

acid changes or differences in the amino acid sequence of a protein can have dramatic effects on the protein's function. As an example of the unpredictable effects of mutations on protein function, Mickle *et al* (IDS, Med. Clin. North Am., 2000, Vol. 84(3), p. 597-607) teaches that cystic fibrosis is an autosomal recessive disorder caused by abnormal function of a chloride channel, referred to as the cystic fibrosis transmembrane conductance regulator (CFTR – p. 597). Several mutations can cause cystic fibrosis, including the G551D mutation. In this mutation, a glycine replaces the aspartic acid at position 551, giving rise to the cystic fibrosis phenotype. In the most common cystic fibrosis mutation, -F508, a single phenylalanine is deleted at position 508, giving rise to the cystic fibrosis phenotype. Adelhorst et al (IDS, J. Biol. Chem. 269: 6275-6278, 1994) teach that a single mutation at position Phe28 to alanine results in a drastic reduction (~1300 fold) of GLP-1 binding to its receptor (see Table I, which is IC50 from 0.27nM to 351nM). Thus, the substitution or deletion of a single amino acid can have dramatic and *unpredictable* effects on the function of the protein. Further, the art of predicting the efficacy of a compound or peptide via various routes of administration (subcutaneous, transdermal, oral, buccal, sublingual, nasal, or by inhalation) is not predictable. For example, a polypeptide, which is administered intravenously, would not necessarily be stable when administered orally as it would be susceptible of cleavage by various proteases. Thus, a person of ordinary skill in the art would require further, undue experimentation to make, and then use, all possible analogs of an unacylated and acylated ghrelin for preventing and/or treating any insulin-associated parameter in a subject in need thereof.

The amount of direction and guidance present and the presence or absence of working examples: Given the teachings found in the art, detailed teachings are required to be present in the disclosure in order to enable the skilled artisan to practice the invention as claimed. These teachings are absent. The specification on pages on page 32-42 discloses an unacylated ghrelin, ghrelin, or a combination thereof, which when administered by an intravenous injection to in a subject, it alters an insulin-associated parameter. The specification is devoid of any models or experimental analysis that reasonably suggests that the claimed method would predictably prevent in alteration of insulin-associated parameter by administering ghrelin or an analog thereof, and unacylated ghrelin or an analog thereof in a patient. This, combined with the state of the art of preventing an insulin-asociated parameter, suggests that undue experimentation would be required to practice the invention as broadly claimed.

The breadth of the claims and the quantity of experimentation needed: Due to the large quantity of experimentation necessary (i) to administer an analog of unacylated ghrelin and an analog of ghrelin that would "prevent" any insulin-associated parameter in a subject or (ii) to administer any analog of ghrelin and any analog of unacylated ghrelin that would alter an insulin-associated parameter in a subject, the lack of direction/guidance presented in the specification regarding the same, the absence of working examples directed to same, the complex nature of the invention, the state of the prior art which establishes the unpredictability about administering any analog of the instantly claimed ghrelin and unacylated ghrelin analogs that would prevent any insulin-

associated parameter in said patient, undue experimentation would be required of the skilled artisan to make and/or use the claimed invention in its full scope.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8, 11,12, 17-20, 25-29, 43-48, 87-96 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 7,485,620 in view of Enomoto et al (Clinical Sci. 105: 431-435, 2003) and Flanagan et al (Am. J. Physiol. Endocr. Metab. 284: E313-E316, 2003).

The instant claims are broadly drawn to a method of altering an insulin-associated parameter in a subject by administering a composition comprising (i) a ghrelin or analog thereof, and (ii) unacylated ghrelin or analog thereof, wherein said composition further comprises a pharmaceutically acceptable carrier, wherein said

insulin-associated parameter is insulin level, wherein said method is treating insulin deficiency or treating insulin resistance, wherein said insulin resistance is associated with obesity, wherein obesity is associated with reduced growth hormone level, activity or both and wherein said subject has type I or type II diabetes. The method of claim 1, wherein said ghrelin or analog thereof and said unacylated ghrelin or analog thereof is administered through a route selected from the group consisting of intravenous, oral, transdermal, subcutaneous, mucosal, intramuscular, intranasal, intrapulmonary, parenteral, intrarectal and topical, wherein said ghrelin or analog thereof is administered at a dose of about 1 ug/kg, wherein said unacylated ghrelin or analog thereof is administered at a dose of about 1utg/kg, wherein said subject is a mammal, wherein altering glucose level involves lowering glucose level in said subject, wherein said administration of said ghrelin or analog thereof and said unacylated ghrelin or analog thereof is sequential, wherein said administration of said ghrelin or analog thereof and said unacylated ghrelin or analog thereof is simultaneous.

Claims 1-21 of US Patent No. 7,485,620 disclose a method of lowering blood glucose, or treating insulin resistance in a patient comprising administering to said patient a therapeutically effective amount of an agent selected from the group consisting of (a) unacylated ghrelin; (b) the unacylated ghrelin of (a) having one or more conservative amino acid substitutions; and (c) pharmaceutically acceptable salts of (a) and (b) (claims 1, 12), wherein the elevated blood glucose is associated with insulin resistance (claims 2, 19), wherein the elevated blood glucose is associated with insulin deficiency (claim 3), wherein the agent antagonizes acylated ghrelin (claim 4), wherein said agent

is administered through a route selected from the group consisting of intravenous, subcutaneous, transdermal, oral, buccal, sublingual, nasal and inhalation (claims 5, 13), wherein said agent is administered in a dose varying from about 0.001 μ g/kg to 10.0 μ g/kg (claims 6, 14), wherein said agent is administered in a dose varying from about 1 μ g/kg to 1 mg/kg (claims 7, 15), wherein the elevated blood glucose is associated with a postprandial insulin resistance (claim 8) , wherein the elevated blood glucose is associated with a body weight increase in a patient suffering from a condition selected from the group consisting of type II diabetes and syndrome X (claims 9, 17), wherein said unacylated ghrelin comprises the amino acid sequence set forth in SEQ ID NO: 1 (claims 10, 20), wherein the unacylated ghrelin having one or more conservative amino acid substitutions is naturally-occurring (claims 11, 21), wherein the insulin resistance is associated with low growth hormone action (claim 18).

US Patent No. 7,485,620 does not teach a method of altering an insulin-associated parameter in a subject by administering a composition comprising (i) a ghrelin or analog thereof, and (ii) unacylated ghrelin or analog thereof.

Flanagan et al teach that ghrelin interacts with the growth hormone (GH) secretagogue receptor in the pituitary and hypothalamus and may function as a third physiological regulator of GH secretion, along with GH-releasing hormone and somatostatin (page E313, left column). They teach that in addition to its role for releasing GH, ghrelin plays role in energy homeostasis. They teach that feeding suppresses the production of ghrelin and fasting stimulates ghrelin release (page E313, left column). They teach that insulin suppresses circulating level of ghrelin

independently of glucose, although glucose may have an additional effect (abstract and page E314, right column).

Enomoto et al teach ghrelin is a 28 amino acid peptide containing an n-octanoyl modification and teach that the intravenous administration of ghrelin shows a dose dependent release of GH in rat and human (Introduction, page 431). They teach effect of ghrelin on various hormones, for example prolactin, adrenalin, noradrenalin (page 433, Hormonal responses to subcutaneous ghrelin and Table 1).

Therefore, it would have been prima facie obvious to the person of ordinary skill in the art at the time the invention was made to administer unacylated ghrelin as taught by Ghigo in combination with acylated ghrelin as taught by Enomoto et al and Flanagan et al. The person of ordinary skill in the art would have been motivated do so to control an insulin associated parameters such as glucose as taught by Enomoto et al and Flanagan et al. One would have a reasonable expectation of success in altering the level of insulin associated parameter because Ghigo et al teach that unacylated ghrelin work as an antagonist for ghrelin and therefore, one of the ordinary skill in the art would be able to adjust the ration of two polypeptide to control an insulin associated parameter. Thus, the invention as instantly claimed is prima facie obvious in view of combined teachings of US Patent No. 7,485,620, Enomoto et al and Flanagan et al.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GYAN CHANDRA whose telephone number is (571)272-2922. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol can be reached on (571) 272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gyan Chandra/
Examiner, Art Unit 1646